In The Claims

Please amend the claims as follows:

Claims:

1. (Currently Amended) A process for the preparation of an olefin homopolymer or copolymer comprising polymerising at least one C_{2-20}-α-olefin in slurry phase in the presence of:

(a~~1~~) a metallocene compound of formula I:

$$(Cp)(Cp")R_nMX_2 \qquad (I)$$

wherein:

Cp is an optionally substituted and/or optionally fused homo- or heterocyclopentadienyl ligand;

Cp" is a cyclopentadienyl substituted by at least one C_{1-20}-alkyl group;

R is a bridge of 1-7 bridging atoms;

M is a group 4 to 6 transition metal;

each X is $-CH_2-Y$, wherein Y is at least one selected from the group consisting of: C_{6-20}-aryl, C_{6-20}-heteroaryl, C_{1-20}-alkoxy, C_{6-20}-aryloxy, $-NR'_2$, $-SR'$, $-PR'_3$, $-SiR'_3$, $-OSiR'_3$ and~~or~~ halogen;

R' is C_{1-20}-hydrocarbyl or in case of $-NR'_2$, the two substituents R' can form a ring together with the nitrogen atom wherein they are attached to;

and each non-cyclopentadienyl ring moiety can further be substituted;

n is 0 or 1; and

(b~~ii~~) an aluminoxane.

2. (Original) A process as claimed in claim 1 wherein n is 0.

3. (Currently Amended) A process as claimed in claim 1~~or 2~~, wherein Cp is optionally substituted by at least one substituent selected from the group consisting of: halogen, C_{1-20}-alkyl, $-C_{2-20}$-alkenyl, C_{2-20}-alkynyl, C_{3-12}-cycloalkyl, C_{6-20}-aryl or C_{7-20}-arylalkyl, C_{3-12}-heterocycloalkyl which contains 1, 2, 3 or 4 heteroatom(s) in the ring moiety, C_{5-20}-heteroaryl, C_{1-20}-haloalkyl, $-SiR"_3$, $-OSiR"_3$, -SR", $-PR"_2$ and~~or~~ $-NR"_2$.

4. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1~~to 3~~, wherein Cp denotes optionally substituted by at least one substituent selected from the group consisting of: cyclopentadienyl, indenyl, tetrahydroindenyl, benzindenyl ~~or~~and fluorenyl.

5. (Original) A process as claimed in claim 4 wherein Cp denotes optionally substituted cyclopentadienyl.

6. (Currently Amended) A process as claimed in claim ~~6~~1 wherein the Cp and Cp" groups are identical.

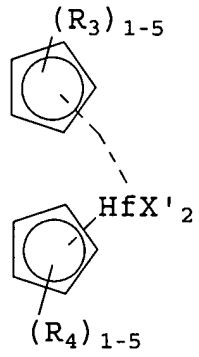
7. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 2~~to 7~~, wherein the Cp and Cp" groups carry 1 to 5 C_{1-6}-alkyl substituents.

8. (Currently Amended) A process as claimed in claim 1 to 7 wherein M is Hf.

9. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1 ~~to 8~~ wherein $-CH_2-Y$ is benzyl or $-CH_2-SiR'_3$.

10. (Original) A process as claimed in claims 1 wherein said metallocene is of formula (II)

(II)



wherein R_3 is a C_{1-6}-alkyl or siloxy substituent, R_4 is a C_{1-6}-alkyl, and both X' groups are either benzyl (Bz) or $CH_2SiR'_3$ wherein R' is C_{1-20}-hydrocarbyl.

11. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1 ~~to 10~~ wherein said slurry phase is carried out in a loop reactor.

12. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1 ~~to 11~~ wherein said slurry phase polymerisation is one stage of a multistage polymerisation.

13. (Original) A process as claimed in claim 12 wherein subsequent to said slurry phase polymerisation there is a gas phase polymerisation.

14. (Original) A process as claimed in claim 13 wherein the weight ratio of produced polymer in the slurry phase:

gas phase is 60:40 to 40:60.

15. (Currently Amended) A process as claimed in claim 13 ~~or 14~~, wherein said polymerisation comprises~~consists of two stages,~~ a slurry phase and a gas phase stage.

16. (Original) A process as claimed in claim 13 wherein said gas phase polymerization is itself followed by a further gas phase polymerisation stage.

17. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1~~ to 16~~ wherein the metallocene is prepolymerised.

18. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1~~ to 17~~, wherein said olefin homopolymer or copolymer is an ethylene homopolymer or ethylene copolymer with a C_{3-6}-comonomer.

19. (Currently Amended) A process as claimed in ~~any one of~~ claim~~s~~ 1~~ to 18~~, wherein said metallocene is supported on a carrier.

20. (Currently Amended) A ~~M~~metallocene compound~~s~~ of formula (III)

$$Cp'_2HfX^1_2 \quad (III)$$

wherein each Cp' denotes a mono or di C_{1-6}-alkyl-substituted cyclopentadienyl, X^1 is benzyl or $CH_2SiR'_3$ in which R' is C_{1-20}-hydrocarbyl.

21. (Currently Amended) ~~A~~The metallocene compound as claimed in claim 20 wherein R' is methyl.

22. (Currently Amended) ~~The~~A metallocene compound~~s~~ selected from the group consisting of:

bis(n-butylcyclopentadienyl)Hf dibenzyl,

bis(methylcyclopentadienyl)Hf dibenzyl,

bis(1,2-dimethylcyclopentadienyl)Hf dibenzyl,

bis(n-butylindenyl) Hf dibenzyl,

bis(methylindenyl) Hf dibenzyl,

bis(dimethylindenyl) Hf dibenzyl,

bis(n-propylcyclopentadienyl)Hf dibenzyl,

bis(i-propylcyclopentadienyl)Hf dibenzyl,

bis(n-butylcyclopentadienyl) Hf $(CH_2SiMe_3)_2$,

bis(n-propylcyclopentadienyl) Hf $(CH_2SiMe_3)_2$,

bis(i-propylcyclopentadienyl) Hf $(CH_2SiMe_3)_2$, and mixtures thereof~~.~~

23. (Currently Amended) An olefin produced by a process ~~as claimed in any one of claims 1 to 19~~for the preparation of an olefin homopolymer or copolymer comprising polymerising at least one C_{2-20}-α-olefin in slurry phase in the presence of:

(a) a metallocene compound of formula I:

$$(Cp)(Cp")R_nMX_2 \qquad (I)$$

wherein:

Cp is an optionally substituted and/or optionally fused homo- or heterocyclopentadienyl ligand;

Cp" is a cyclopentadienyl substituted by at least one C_{1-20}-alkyl group;

R is a bridge of 1-7 bridging atoms;

M is a group 4 to 6 transition metal;

each X is $-CH_2-Y$, wherein Y is at least one selected from the group consisting of: C_{6-20}-aryl, C_{6-20}-heteroaryl, C_{1-20}-alkoxy, C_{6-20}-aryloxy, $-NR'_2$, $-SR'$, $-PR'_3$, $-SiR'_3$, $-OSiR'_3$ and halogen;

R' is C_{1-20}-hydrocarbyl or in case of $-NR'_2$, the two substituents R' can form a ring together with the nitrogen atom wherein they are attached to;

and each non-cyclopentadienyl ring moiety can further be substituted;

n is 0 or 1; and

(b) an aluminoxane.